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DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING
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MEMORANDUM

TO: The Board of Oil, Gas, and Mining

FROM: James W. Smith, Jr., Reclamation Soils Specialist *JWS*

SUBJECT: Tentative Approval
Sapphire Corporation
Spectrum Quarry
Millard County, Utah
ACT/027/003

DATE: March 15, 1979

The Division staff has reviewed the Mining and Reclamation Plan submitted by Sapphire Corporation for their Spectrum Quarry Mine in Millard County and feels that the plan meets the requirements of the Utah Mined Land Reclamation Act.

The Division seeks the Board's concurrence for issuing tentative approval so that publishing an abbreviated version of the plan may proceed. In addition, the Division seeks the Board's concurrence on the amount of reclamation surety and requests the Board's opinion on the form of surety to be requested from Sapphire Corporation. An Executive Summary and Bond Estimate is attached for your review.

You will also find attached a letter from Sapphire Corporation requesting the Board's permission to remove overburden from the top of the quarry prior to issuance of final approval.

EXECUTIVE SUMMARY

SAPPHIRE CORPORATION

SPECTRUM QUARRY MINE

ACT/027/003

Section 23, Township 17 South, Range 13 West
Millard County, Utah

March 15, 1979

LOCATION:

This building and decorative stone quarry operation is located approximately 39 air miles due west of Delta in Section 23, Township 17 South, Range 13 West in Millard County on patented mining claims. Additional claims lie in Sections 14 and 22. The mine is in the House Range situated near landmarks such as Antelope Mtn., Howell Peak, Swasey Mtn., and an area known as the Trilobite Beds. See attached map.

SOILS AND GEOLOGY:

Soils in the area are well to excessively drained, permeability is moderately rapid to rapid, runoff is medium to very rapid, and sediment production is moderate. The deposit is a fossiliferous limy shale of the middle cambrian period.

HYDROLOGY:

The average annual precipitation is 6 - 10 inches. There are no perennial streams near this operation, however, there is an ephemeral channel just below the quarry which eventually drains into the Sevier Desert.

ECOLOGY:

Vegetation in the mine area consists chiefly of big sagebrush, shadscale, broom snakeweed, cheatgrass, and other associated grasses and forbs in lesser amounts. The area is mainly used as range and wildlife habitat. However, there is a limited amount of recreational use of the area such as hunting and rock hounding.

STRUCTURES AND FACILITIES:

The total surface area to be disturbed is approximately 37 acres. The quarry, a bench-type operation, comprises the major portion of disturbance. The camp area consists of a 50 foot house trailer, a metal shop building, tool shed, water and septic tanks, a portable generator, 60 foot T.V. and C.B. antennas, and equipment and supply areas. There is also a 3,960 foot dirt airstrip adjacent to the mine area. This landing strip lies on Bureau of Land Management administered land and was installed by Merd Corporation, a former lessee, without the permission of either Sapphire Corporation or Bureau of Land Management. However, Sapphire Corporation wishes to utilize this facility and commits to its maintenance and reclamation. The airstrip comprises approximately 7 acres of the total disturbance.

MINING AND RECLAMATION:

During Operations:

1. Existing quarry workings will be utilized and further developed.
2. Overburden and available topsoil will be removed, segregated, and stockpiled prior to extraction of the stone.
3. Existing dirt and gravel county roads will provide access.
4. Test plots will be established to determine techniques and species to be used in reclamation.
5. Mining will be conducted in a safe and orderly manner and will strive to minimize environmental and visual degradation.

After Operations:

1. All extraneous debris, scrap metal, wood, and unuseable buildings will be buried or removed from the property.
2. All areas will be left in a self-draining and non-impounding condition.
3. Quarry benches will be backfilled with stockpiled overburden and spoil material to reduce highwalls and achieve a stable near-natural slope.
4. The disturbed surface areas will be regraded, covered with stockpiled topsoil and surficial material suitable as a growth medium, and seeded with a diverse species mixture.
5. Revegetation will be monitored for three growing seasons and re-seeded if necessary.

IMPACTS:

Visual and environmental impacts as a result of this mining operation should be minimal. Any impacts will be mitigated upon reclamation of the area.

SURETY ESTIMATE:

Surety for this operation was estimated to be \$14,709.00, including a 5% inflation factor for an anticipated mine life of 5 years.* Work included in the estimate consists of the following:

- a. Removal of trash, debris, buildings, etc.
- b. Earthwork including spreading, grading and recontouring.
- c. Soil preparation and seeding.
- d. Removal of hazardous materials.
- e. Supervision and annual inspections.

*The actual mine life is anticipated to exceed 5 years. However, to keep the bond estimate within Sapphire Corporation's financial grasp, a lower inflation factor was used. The operation should be inspected annually and the surety reevaluated every 5 years. A copy of the estimate is attached.

APPLICATION HISTORY:

June 15, 1978	Division received MR Form 1 from Merd Corporation.
June 16, 1978	Division requested additional information to complete the filing.
July 12, 1978	Division performed field inspection.
July 25, 1978	Division received additional information from Merd Corporation.

APPLICATION HISTORY (cont).

October 24, 1978	Division requested additional information not provided in original request.
December 26, 1978	Division received letter from Lifetime West Corporation (individuals formerly with Merd Corporation) requesting status of plan and stating they were no longer associated with Merd Corporation.
January 27, 1979	Reply from Lifetime West Corporation to numerous Division phone calls. New contact for mine is Sapphire Corporation.
February 5, 1979	Division received phone call from Sapphire Corporation explaining new situation and requesting information for new filing. Division responded with a letter.
February 8, 1979	Sapphire Corporation met with Division to discuss operation and information required for plan.
February 16, 1979	Sapphire Corporation submitted revised plan after several additional visits with the Division personnel.
February 23, 1979	Sapphire submitted request to commence mining prior to final approval.
March 14, 1979	Bond estimated after Division review of plan.
March 15, 1979	Executive Summary prepared.

DIVISION OF OIL, GAS, AND MINING

BOND ESTIMATE

OPERATOR: Sapphire Corporation
 MINE NAME: Spectrum Quarry Mine
 LOCATION: Section 23, Township 17 South, Range 13 West
 COUNTY: Millard
 DATE: March 14, 1979

	Operation	Amount	Rate	Cost
A.	CLEAN-UP			
	1. Removal of structures & equipment.	Lump sum	\$1,000.00	\$1,000.00
	2. Removal of trash & debris.	Included		
	3. Leveling of ancillary facilities pads and access roads.	Included		
B.	REGRADEING & RECONTOURING			
	1. Earthwork including haulage and grading of spoils, waste and overburden.	40 hours	\$85/hr	\$3,400.00
	2. Recontouring of highwalls and excavations.	Included		
	3. Spreading of soil or surficial materials.	Included		
C.	STABILIZATION			
	1. Soil preparation, scarification, fertilization, etc.	37 acre	\$25/acre	\$925.00
	2. Seeding or planting.	37 acre	\$150/acre	\$5,500.00
	3. Construction of terraces, water-bars, etc.	Included in B above.		
D.	LABOR			
	1. Supervision.	40 hours	\$10/hour	\$400.00
	2. Labor exclusive of bulldozer time.	Included		
E.	SAFETY			
	1. Erection of fences, portal coverings, etc.			
	2. Removal or neutralization of explosive or hazardous materials.	Lump sum	\$100.00	\$100.00
F.	MONITORING			
	1. Continuing or periodic monitoring, sampling & testing deemed necessary.	3 annual inspections	\$50/each	\$150.00
G.	OTHER			
	Subtotal			\$11,525.00
	5% inflation for 5 year life*		1.2763	\$ 3,184.00
	Total			\$14,709.00

*Reevaluate every 5 years.

Sapphire Corp.

1884 Harrison Avenue
Salt Lake City, Ut. 84108
(801) 363-4787



Feb. 20, 1979

DIVISION OF OIL, GAS, AND MINING
1588 West North Temple
Salt Lake City, Ut. 84116

Gentlemen:

Our Corporation owns and is actively engaged in a Quarry Operation in Millard County, Utah.

Recently we made application to comply with all standards outlined in your Reclamation Plan.

We have one vital problem however, and that is to continue removing the overburden now from the top of the hill, so that moisture can penetrate and help free up the slabs of stone below, thus making it a more feasible Mining Operation, both time wise and cost wise.

For that reason, we beg your board to consider granting us permission, prior to advertising and bonding, to continue removing overburden from the top of the Quarry, (in the already disturbed surface pit area, which was done prior to 1975.)

Any consideration in the above mentioned request would be most greatly appreciated.

Sincerely,

Aleda Jensen
Aleda Jensen (Sec.)

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